1. Record Nr. UNINA9910488711503321

Titolo	Advances in Human Factors in Robots, Unmanned Systems and Cybersecurity : Proceedings of the AHFE 2021 Virtual Conferences on Human Factors in Robots, Drones and Unmanned Systems, and Human Factors in Cybersecurity, July 25-29, 2021, USA / / edited by Matteo Zallio, Carlos Raymundo Ibañez, Jesus Hechavarria Hernandez
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-79997-2
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (283 pages)
Collana	Lecture Notes in Networks and Systems, , 2367-3389 ; ; 268
Disciplina	629.8
Soggetti	Robotics User interfaces (Computer systems) Human-computer interaction Psychology Mass media Security systems Robotic Engineering User Interfaces and Human Computer Interaction Cyberpsychology Security Science and Technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Concept for cross-platform delegation of heterogeneous UAVs in a MUM-T environment -- Swarms, teams, or choirs? Metaphors in multi-UAV systems design -- Visual communication with UAS: Estimating parameters for gestural transmission of task descriptions -- A distributed mission-planning framework for shared UAV use in multi-operator MUM-T applications -- Conditional behavior: Human delegation mode for unmanned vehicles under selective Datalink availability -- Lethal Autonomous Weapon Systems (LAWS): An advocacy paper -- Measuring the impact of a navigation aid in unmanned ship handling via a shore control center -- A computational

assessment of ergonomics in an industrial human-robot collaboration workplace using system dynamics.

Sommario/riassunto

This book focuses on the importance of human factors in the development of safe and reliable robotic and unmanned systems. It discusses solutions for improving the perceptual and cognitive abilities of robots, developing suitable synthetic vision systems, coping with degraded reliability in unmanned systems, and predicting robotic behavior in relation to human activities. It covers the design of improved, easy to use, human–system interfaces, together with strategies for increasing human–system performance, and reducing cognitive workload at the user interface. It also discusses real-world applications and case studies of human-robot and human-agent collaboration in different business and educational endeavors. The second part of the book reports on research and developments in the field of human factors in cybersecurity.Contributions cover the technological, social, economic and behavioral aspects of the cyberspace, providing a comprehensive perspective to manage cybersecurity risks. Based on the two AHFE 2021 Conferences such as the AHFE 2021 Conference on Human Factors in Robots, Drones and Unmanned Systems, and the AHFE 2021 Conference on Human Factors in Cybersecurity, held virtually on 25–29 July, 2021, from USA, this book offers extensive information and highlights the importance of multidisciplinary approaches merging engineering, computer science, business and psychological knowledge. It is expected to foster discussion and collaborations between researchers and practitioners with different background, thus stimulating new solutions for the development of reliable and safe, human-centered, highly functional devices to perform automated and concurrent tasks, and to achieve an inclusive, holistic approach for enhancing cybersecurity.